

FM/AM Cassette Car Stereo

Operating Instructions _____

US

Owner's Record

The model and serial numbers are located on the bottom of the unit.
Record the serial number in the space provided below.
Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. XR-C7220 Serial No. _____

For installation and connections, see the supplied installation/connections manual.

XR-C7220

Warning

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

Welcome !

Thank you for purchasing this Sony Cassette Player. This unit lets you enjoy a variety of features as well as an optional rotary commander or an optional wireless remote.

In addition to the cassette playback and radio operations, you can expand your system by connecting an optional CD/MD unit*¹. When you operate this unit or a connected optional CD unit with the CD TEXT function, the CD TEXT information will appear in the display when you play a CD TEXT disc*².

*¹ You can connect a CD changer, an MD changer, a CD player, or an MD player.

*² A CD TEXT disc is an audio CD that includes information such as the disc name, artist name, and track names.
This information is recorded on the disc.

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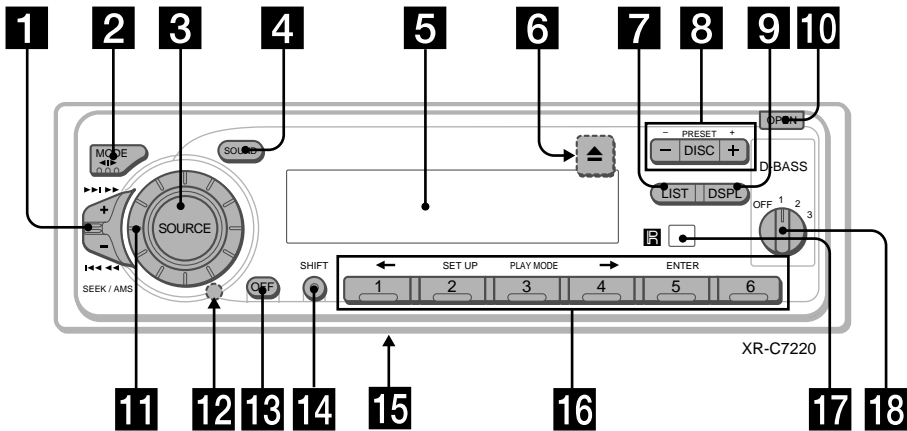
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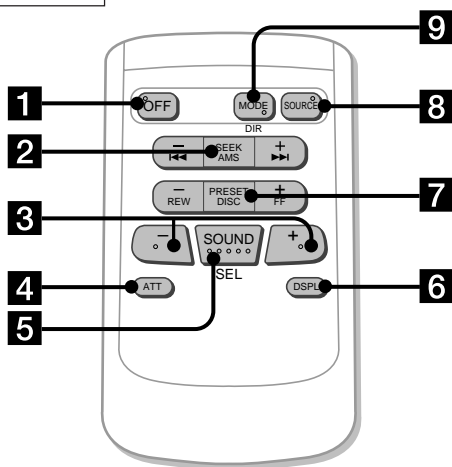
Location of controls



Refer to the pages listed for details.

- 1** SEEK/AMS (seek/Automatic Music Sensor/manual search) control 8, 10, 17, 20, 21
- 2** MODE (◀▶) button
During tape playback: Playback direction change 8
During radio reception: BAND select 9, 10
During CD or MD playback: CD/MD Unit select 16, 19
During TV reception or video playback: TV/VIDEO select 21
- 3** SOURCE (TAPE/TUNER/CD/MD/TV) button 8, 9, 10, 16, 19, 21, 23
- 4** SOUND button 14
- 5** Display window
- 6** ▲ (eject) button (located on the front side of the unit behind the front panel) 8
- 7** LIST button
Station Memo 11, 12
List-up 12, 19, 22
Disc Memo 18, 19
- 8** PRESET/DISC button
During radio reception: Preset stations select 10
During CD/MD playback: Disc change 17
- 9** DSPL (display mode change) button 8, 11, 12, 16, 18, 19
- 10** OPEN (front panel release) button 6, 8, 25
- 11** Dial (volume/bass/treble/left-right/rear-front control) 7, 11, 12, 14, 18, 19
- 12** Reset button (located on the front side of the unit behind the front panel) 6
- 13** OFF button 6, 8
- 14** SHIFT button
PLAY MODE 9, 10, 17, 20, 21
SET UP 7, 15, 16
- 15** POWER SELECT switch (located on the bottom of the unit) See "POWER SELECT switch" in the Installation/Connections manual.
- 16** Number buttons
During radio reception: 10
During TV reception: 21
- 17** Sensor for the optional wireless remote
- 18** D-BASS control 15

**Optional wireless remote
(RM-X47)**



The corresponding buttons of the wireless remote control the same functions as those on this unit.

- | | |
|------------------------------------|---|
| 1 OFF button | 6 DSPL button |
| 2 SEEK/AMS button | 7 PRESET/DISC button
<i>You cannot perform manual search and manual tuning with the remote.</i> |
| 3 - + buttons | 8 SOURCE button |
| 4 ATT button | 9 MODE/DIR button |
| 5 SOUND/SEL button | |

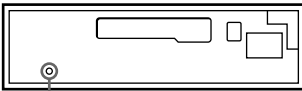
When the POWER SELECT switch is set to the **B** position, the unit cannot be operated with the wireless remote unless **(SOURCE)** on the unit is pressed or a cassette is inserted to activate the unit first.

Getting Started

Resetting the unit

Before operating the unit for the first time or after replacing the car battery, you must reset the unit.

Remove the front panel and press the reset button with a pointed object, such as a ball-point pen.



Reset button

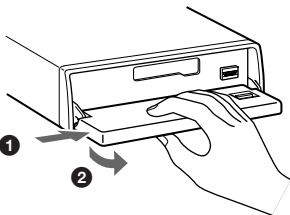
Note

Pressing the reset button will erase the clock setting and some memorized functions.

Detaching the front panel

You can detach the front panel of this unit to protect the unit from being stolen.

- 1 Press **OFF**.
- 2 Press **OPEN**, then slide the front panel to the right side, and pull out from the left side.

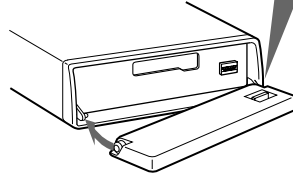
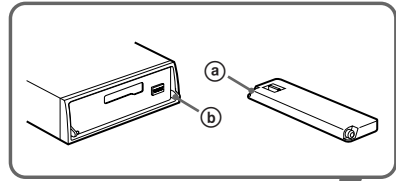


Notes

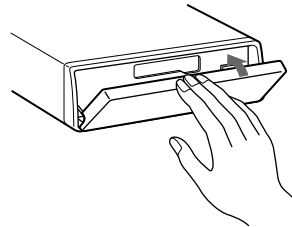
- Be sure not to drop the panel when detaching it from the unit.
- If you detach the panel while the unit is still turned on, the power will turn off automatically to prevent the speakers from being damaged.
- When carrying the front panel with you, use the supplied front panel case.

Attaching the front panel

Place the hole **(a)** in the front panel onto the spindle **(b)** on the unit as illustrated, then push the left side in.



μ



Notes

- Be sure not to attach the front panel upside down.
- Do not press the front panel too hard against the unit when attaching it.
- Do not press too hard or put excessive pressure on the display window of the front panel.
- Do not expose the front panel to direct sunlight or heat sources such as hot air ducts, and do not leave it in a humid place. Never leave it on the dashboard of a car parked in direct sunlight or where there may be a considerable rise in temperature.

Caution alarm

If you turn the ignition key switch to the OFF position without removing the front panel, the caution alarm will beep for a few seconds (only when the POWER SELECT switch on the bottom of the unit is set to the **(A)** position).

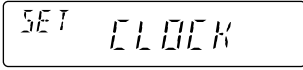
If you connect an optional power amplifier and do not use the built-in amplifier, the beep sound will be deactivated.

Setting the clock

The clock uses a 12-hour digital indication.

Example: To set the clock to 10:08

- 1 Press **(SHIFT)**, then press **(2)** (SET UP) repeatedly until "CLOCK" appears.



- 1 Press **(4)** (→).



The hour indication flashes.

- 2 Set the hour.



to go backward

to go forward



- 3 Press **(4)** (→).



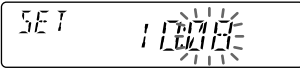
The minute indication flashes.

- 4 Set the minute.

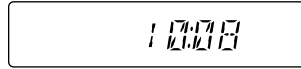


to go backward

to go forward



- 2 Press **(SHIFT)**.



The clock starts.

- 3 Press **(SHIFT)**.
After the clock setting is complete, the display returns to normal playback mode.

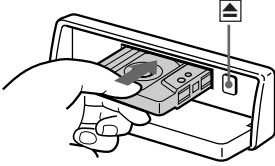
Note

If the POWER SELECT switch on the bottom of the unit is set to the **(B)** position, turn the power on first, then set the clock.

Cassette Player

Listening to a tape

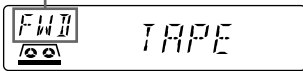
- 1 Press **(OPEN)** and insert a cassette.
Playback starts automatically.



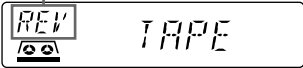
- 2 Close the front panel.

If a cassette is already inserted, press **(SOURCE)** repeatedly until "FWD" or "REV" appears to start playback.

The side facing up is played.



The side facing down is played.



Tip
To change the tape's playback direction, press **(MODE)** (◀▶).

To	Press
Stop playback	(OFF)
Eject the cassette	(▲)

Fast-winding the tape

During playback, push the **SEEK/AMS** control up or down and hold.

Fast-forward

Rewind



To start playback during fast-forwarding or rewinding, press **(MODE)** (◀▶).

Locating a specific track

— Automatic Music Sensor (AMS)

During playback, push the **SEEK/AMS** control up or down and release for each track you want to skip.
You can skip up to nine tracks at one time.

To locate succeeding tracks

To locate preceding tracks



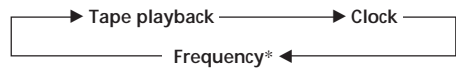
Note

The AMS function may not work when:

- the blanks between tracks are shorter than four seconds
- there is noise between tracks
- there are long sections of low volume or quiet sections.

Changing the display item

Each time you press **(DSPL)**, the item changes as follows:



* While the ATA function is activated.

After you select the desired item, the display will automatically change to the Motion Display mode after a few seconds.

In the Motion Display mode, all the above items are scrolled in the display one by one in order.


Tip

The Motion Display mode can be turned off. (See "Changing the sound and display settings" on page 15).

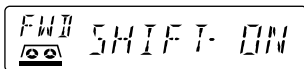
Playing a tape in various modes

You can play the tape in various modes:

- REP (Repeat Play) repeats the current track.
- NR (Dolby NR) lets you select the Dolby* NR B system.
- METAL (Metal) lets you play a metal or CrO₂ tape.
- BL SKP (Blank Skip) skips blanks longer than eight seconds.
- ATA (Automatic Tuner Activation) turns on the tuner automatically while fast-winding the tape.

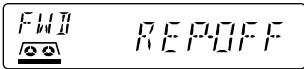
* *Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.*

- 1 During playback, press **(SHIFT)**.
"SHIFT-ON" appears in the display.

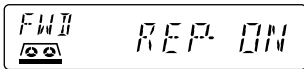


- 2 Press **(3)** (PLAY MODE) repeatedly until the desired play mode appears.
Each time you press **(3)** (PLAY MODE), the item changes as follows:

REP → NR → METAL → BL SKP → ATA



- 3 Press **(4)** (→) to select "ON."



Play mode starts.

- 4 Press **(SHIFT)**.

To return to normal playback mode, select "OFF" in step 3 above.

Note

If the "SFT" indication appears, press **(SHIFT)** to complete the mode setting.

Radio

Memorizing stations automatically

— Best Tuning Memory (BTM)

The unit selects the stations with the strongest signals and memorizes them in the order of their frequencies. You can store up to 6 stations on each band (FM1, FM2, FM3, AM1, and AM2).

Caution

When tuning in stations while driving, use Best Tuning Memory to prevent accidents.

- 1 Press **(SOURCE)** repeatedly to select the tuner.

Each time you press **(SOURCE)**, the source changes as follows:



* *If the corresponding optional equipment is not connected, this item will not appear.*

- 2 Press **(MODE)** repeatedly to select the band.

Each time you press **(MODE)**, the band changes as follows:



- 3 Press **(SHIFT)**, then press **(3)** (PLAY MODE) repeatedly until "B.T.M" appears.

- 4 Press **(4)** (→).

The unit stores stations in the order of their frequencies on the number buttons. A beep sounds when the setting is stored.

- 5 Press **(SHIFT)**.

Notes

- The unit does not store stations with weak signals. If only a few stations can be received, some number buttons will retain their former setting.
- When a number is indicated in the display, the unit starts storing stations from the one currently displayed.

Memorizing only the desired stations

You can preset up to 18 FM stations (6 each for FM1, 2, and 3) and up to 12 AM stations (6 each for AM1 and 2) in the order of your choice.

- 1 Press **(SOURCE)** repeatedly to select the tuner.
- 2 Press **(MODE)** repeatedly to select the band.
- 3 Push the SEEK/AMS control up or down to tune in the station that you want to store on the number button.
- 4 Press and hold the desired number button (**(1)** to **(6)**) until "MEM" appears. The number button indication appears in the display.

Note

If you try to store another station on the same number button, the previously stored station will be erased.

Receiving the memorized stations

- 1 Press **(SOURCE)** repeatedly to select the tuner.
- 2 Press **(MODE)** repeatedly to select the band.
- 3 Press the number button (**(1)** to **(6)**) on which the desired station is stored.

Tip

Press either side of **(PRESET/DISC)** to receive in order the stations stored in the memory (Preset Search Function).

If you cannot tune in a preset station

Push and release the SEEK/AMS control up or down to search for the station (automatic tuning).

Scanning stops when the unit receives a station. Push the SEEK/AMS control up or down repeatedly until the desired station is received.

Note

If the automatic tuning stops too frequently, press **(SHIFT)**, then press **(3)** (PLAY MODE) repeatedly until "LOCAL" (local seek mode) is displayed. Then press **(4)** (→) to select "LOCAL-ON." Press **(SHIFT)**. Only the stations with relatively strong signals will be tuned in.

Tip

If you know the frequency of the station you want to listen to, push the SEEK/AMS control up or down and hold until the desired frequency appears (manual tuning).

If FM stereo reception is poor

— Monaural Mode

- 1 During radio reception, press **(SHIFT)**, then press **(3)** (PLAY MODE) repeatedly until "MONO" appears.
 - 2 Press **(4)** (→) repeatedly until "MONO-ON" appears. The sound improves, but becomes monaural ("ST" disappears).
 - 3 Press **(SHIFT)**.
- To return to normal mode, select "MONO-OFF" in step 2 above.

Changing the display item

Each time you press (DSPL), the item changes as follows:

Frequency ↔ Clock

After you select the desired item, the display will automatically change to the Motion Display mode after a few seconds.

In the Motion Display mode, all the above items are scrolled in the display one by one in order.

Tip

The Motion Display mode can be turned off. (See "Changing the sound and display settings" on page 15).

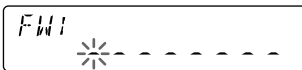
Storing the station names

— Station Memo

You can assign a name to each radio station and store it in memory. The name of the station currently tuned in appears in the display. You can assign a name of up to eight characters per station.

Storing the station names

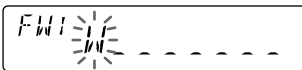
- 1 Tune in a station whose name you want to store.
- 2 Press (LIST) for two seconds.



- 3 Enter the characters.

- 1 Rotate the dial clockwise to select the desired characters.

(A → B → C → ... Z → 0 → 1 → 2 → ... 9 → + → - → * → / → \ → > → < → . → _)



If you rotate the dial counterclockwise, the characters appear in the reverse order.

If you want to put a blank space between characters, select "_" (under-bar).

- 2 Press (4) (→) after locating the desired character. The flashing cursor moves to the next space.



If you press (1) (←), the flashing cursor moves to the left.

- 3 Repeat steps 1 and 2 to enter the entire name.

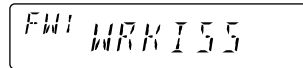
- 4 To return to normal radio reception, press (LIST) for two seconds.

Tip

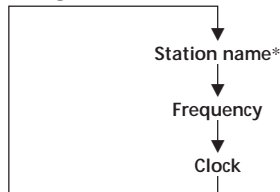
To erase or correct a name, enter "_" (under-bar) for each character.

Displaying the station name

Press (DSPL) during radio reception.



Each time you press (DSPL), the item changes as follows:



* If the station name of a station is not stored, "NO NAME" appears in the display for one second.

After you select the desired item, the display will automatically change to the Motion Display mode after a few seconds. In the Motion Display mode, all the above items are scrolled in the display one by one in order.

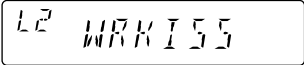
Tip

The Motion Display mode can be turned off. (See "Changing the sound and display settings" on page 15).

Erasing the station name

- 1 Tune in any station and press **(LIST)** for two seconds.
- 2 Press **(DSPL)** for two seconds.
- 3 Rotate the dial to select the name that you want to erase.
- 4 Press **(5)** (ENTER) for two seconds.
The name is erased.
Repeat steps 3 and 4 if you want to erase other names.
- 5 Press **(LIST)** for two seconds.
The unit returns to normal radio reception mode.

Locating a station by name — List-up

- 1 Press **(LIST)** momentarily.
The name assigned to the current station appears in the display.

- 2 Press **(LIST)** repeatedly until you find the desired station.
- 3 Press **(5)** (ENTER) to tune in the desired station.

Note

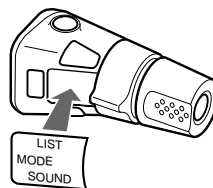
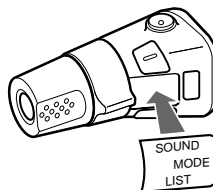
Once the station name or frequency has been displayed for five seconds, the display goes back to its normal mode. To turn off the display, press **(DSPL)**.

Other Functions

You can also control this unit with an optional rotary commander.

Labeling the rotary commander

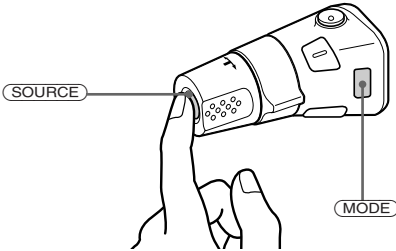
Depending on how you mount the rotary commander, attach the appropriate label as shown in the illustration below.



Using the rotary commander

The rotary commander works by pressing buttons and/or rotating controls.

By pressing buttons (the SOURCE and MODE buttons)



Each time you press **(SOURCE)**, the source changes as follows:

TUNER → CD* → MD* → TAPE → TV*

Pressing **(MODE)** changes the operation in the following ways;

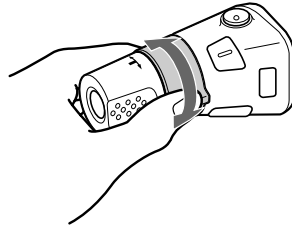
- Tape : playback direction
- Tuner : FM1 → FM2 → FM3 → AM1 → AM2
- CD unit* : CD1 → CD2 → ...
- MD unit* : MD1 → MD2 → ...
- TV/Video* : TV → VIDEO1 → VIDEO2

* If the corresponding optional equipment is not connected, this item will not appear.

Tip

When the POWER SELECT switch is set to position **(B)**, you can turn on this unit by pressing **(SOURCE)** on the rotary commander.

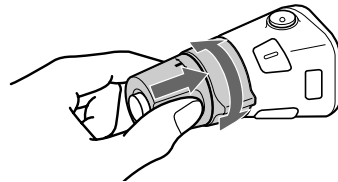
By rotating the control (the SEEK/AMS control)



Rotate the control and release it to:

- Locate the beginnings of tracks on the tape. Rotate and hold the control, and release it to fast-wind the tape. To start playback while fast-winding the tape, press **(MODE)**.
- Locate a specific track on a disc. Rotate and hold the control until you locate the specific point in a track, then release it to start playback.
- Tune in stations automatically. Rotate and hold the control to find a specific station.

By pushing in and rotating the control (the PRESET/DISC control)

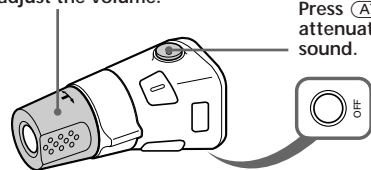


Push in and rotate the control to:

- Receive the stations memorized on the number buttons.
- Change the disc.

Other operations

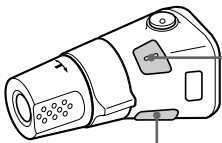
Rotate the VOL control to adjust the volume.



Press **(ATT)** to attenuate the sound.

Press **(OFF)** to turn off the unit.

continue to next page →



Press **(SOUND)** to adjust the volume and sound menu.

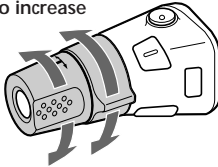
Press **(LIST)** to:

- Display the memorized names.
- Display the program type.

Changing the operative direction

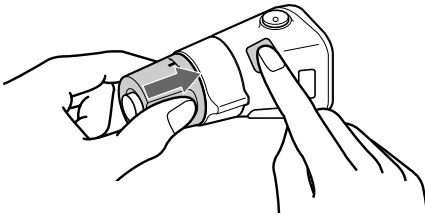
The operative direction of controls is factory-set as shown below.

To increase



To decrease

If you need to mount the rotary commander on the right side of the steering column, you can reverse the operative direction.



Press **(SOUND)** for two seconds while pushing the VOL control.

Tip

You can also change the operative direction of these controls with the unit (page 15).

Adjusting the sound characteristics

You can adjust the bass, treble, balance, and fader.

You can store the bass and treble levels independently for each source.

1 Select the item you want to adjust by pressing **(SOUND)** repeatedly.

VOL (volume) → BAS (bass) →
TRE (treble) → BAL (left-right) →
FAD (front-rear)

2 Adjust the selected item by rotating the dial.

Adjust within three seconds after selecting the item. (After three seconds, the dial function reverts to volume control.)

Attenuating the sound

Press **(ATT)** on the optional rotary commander or wireless remote. "ATT-ON" flashes momentarily.

To restore the previous volume level, press **(ATT)** again.

Tip

The unit decreases the volume automatically when a telephone call comes in (Telephone ATT function).

Changing the sound and display settings

The following items can be set:

- CLOCK (page 7).
- BEEP – to turn the beep sound on or off.
- RM (Rotary Commander) – to change the operative direction of the rotary commander.
 - Select “NORM” to use the rotary commander as the factory-set position.
 - Select “REV” when you mount the rotary commander on the right side of the steering column.
- M.DSPL – to turn the motion display on or off.
- A.SCRL (Auto Scroll)* (page 16).

1 Press **(SHIFT)**.

2 Press **(2)** (SET UP) repeatedly until the desired item appears.

Each time you press **(2)** (SET UP), the item changes as follows:

CLOCK → BEEP → RM → M.DSPL → A.SCRL*

* When no CD or MD is playing, this item will not appear.

3 Press **(4)** (→) to select the desired setting (Example: ON or OFF).

4 Press **(SHIFT)**.

After the mode setting is complete, the display returns to normal playback mode.

Note

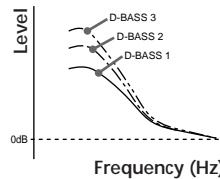
If the “SFT” indication appears, press **(SHIFT)** to complete the mode setting.

Boosting the bass sound

— D-bass

You can enjoy a clear and powerful bass sound. The D-bass function boosts the low frequency signal with a sharper curve than conventional bass boost.

You can hear the bass line more clearly even while the vocal volume remains the same. You can emphasize and adjust the bass sound easily with the D-BASS control.



Adjusting the bass curve

Turn the D-BASS control to adjust the bass level (1, 2, or 3).

“D-BASS” appears in the display.

To cancel, turn the control to OFF.

Note

If the bass sound becomes distorted, adjust the D-BASS control or volume.

With Optional Equipment

CD/MD Unit

This unit can control a maximum of ten external CD/MD units in this configuration:
CD unit – maximum of five
MD unit – maximum of five
Any combination up to ten will work.
If you connect an optional CD unit with the CD TEXT function, the CD TEXT information will appear in the display when you play a CD TEXT disc.

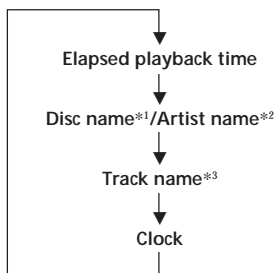
Playing a CD or MD

- 1 Press **(SOURCE)** repeatedly to select CD or MD.
- 2 Press **(MODE)** until the desired unit appears.
CD/MD playback starts.

When a CD/MD unit is connected, all the tracks play from the beginning.

Changing the display item

Each time you press **(DSPL)** during CD, CD TEXT, or MD playback, the item changes as follows:



*1 If you have not labeled the disc or if there is no disc name prerecorded on the MD, "NO NAME" appears in the display.

*2 If you play a CD TEXT disc, the artist name appears in the display after the disc name. (Only for CD TEXT discs with the artist name.)

*3 If the track name of a CD TEXT disc or MD is not prerecorded, "NO NAME" appears in the display.

After you select the desired item, the display will automatically change to the Motion Display mode after a few seconds.
In the Motion Display mode, all the above items are scrolled in the display one by one in order.

Tip

The Motion Display mode can be turned off. (See "Changing the sound and display settings" on page 15).

You can label CD and CD TEXT discs with a personalized name using the disc memo function. Refer to "Labeling a CD" (page 18). However, if you use personalized labels, they will always take priority over the original CD TEXT information when such information is displayed.

Automatically scrolling a disc name — Auto Scroll

If the disc name, artist name, or track name on a CD TEXT disc or MD exceeds 8 characters and the Auto Scroll function is on, information automatically scrolls across the display as follows:

- The disc name appears when the disc has changed (if the disc name is selected).
- The track name appears when the track has changed (if the track name is selected).

If you press **(DSPL)** to change the display item, the disc or track name of the MD or CD TEXT disc is scrolled automatically whether you set the function on or off.

- 1 During playback, press **(SHIFT)**.
- 2 Press **(2)** (SET UP) repeatedly until "A.SCRL" appears.
- 3 Press **(4)** (→) to select "A.SCRL-ON."
- 4 Press **(SHIFT)**.

To cancel Auto Scroll, select "A.SCRL-OFF" in step 3 above.

Note

For some discs with very many characters, the following cases may happen:
— Some of the characters are not displayed.
— Auto Scroll does not work.

Tip

To manually scroll the long name of an MD or CD TEXT disc after activating the Auto Scroll function, press **(SHIFT)**, then **(1)** (←) (manual scroll).

Locating a specific track

— Automatic Music Sensor (AMS)

During playback, push the SEEK/AMS control up or down and release for each track you want to skip.

To locate succeeding tracks

To locate preceding tracks



Locating a specific point in a track

— Manual Search

During playback, push the SEEK/AMS control up or down and hold. Release when you have found the desired point.

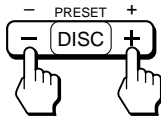
To search forward

To search backward



Changing Discs

During playback, press either side of (PRESET/DISC) momentarily. The desired disc in the current unit begins playback.



For preceding discs

For succeeding discs

Playing tracks repeatedly

— Repeat Play

You can select:

- REP-1 – to repeat a track.
- REP-2 – to repeat a disc.

1 During playback, press (SHIFT), then press (3) (PLAY MODE) repeatedly until “REP” appears.

2 Press (4) (→) repeatedly until the desired setting appears.



Repeat Play starts.

3 Press (SHIFT).

To return to normal playback mode, select “REP-OFF” in step 2 above.

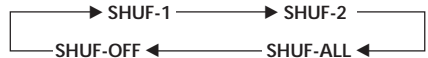
Playing tracks in random order — Shuffle Play

You can select:

- SHUF-1 – to play the tracks on the current disc in random order.
- SHUF-2 – to play the tracks in the current unit in random order.
- SHUF-ALL – to play all the tracks in all the units in random order.

1 During playback, press (SHIFT), then press (3) (PLAY MODE) repeatedly until “SHUF” appears.

2 Press (4) (→) repeatedly until the desired setting appears.



Shuffle Play starts.

3 Press (SHIFT).

To return to normal playback mode, select “SHUF-OFF” in step 2 above.

Labeling a CD — Disc Memo

(For a CD unit with the custom file function)

You can label each disc with a personalized name. You can enter up to eight characters for a disc. If you label a CD, you can locate the disc by name (page 19) and select specific tracks for playback (page 20).

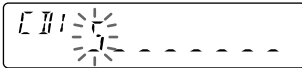
- 1 Play the CD and press **(LIST)** for two seconds.



- 2 Enter the characters.

- 1 Rotate the dial clockwise to select the desired characters.

(A → B → C → ... Z → 0 → 1 → 2 → ... 9 → + → - → * → / → \ → > → < → . → _)

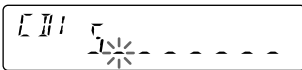


If you rotate the dial counterclockwise, the characters will appear in reverse order.

If you want to put a blank space between characters, select “_” (under-bar).

- 2 Press **(4)** (→) after locating the desired character.

The flashing cursor moves to the next space.



If you press **(1)** (←), the flashing cursor moves to the left.

- 3 Repeat steps 1 and 2 to enter the entire name.

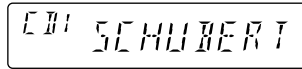
- 3 To return to normal CD playback mode, press **(LIST)** for two seconds.

Tip

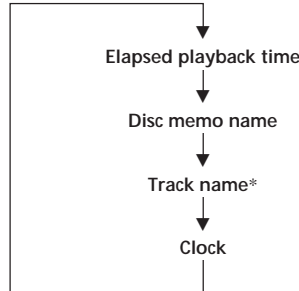
To erase or correct a name, enter “_” (under-bar) for each character.

Displaying the disc memo name

Press **(DSPL)** during CD or CD TEXT disc playback.



Each time you press **(DSPL)** during CD or CD TEXT playback, the item changes as follows:



* If you connect an optional CD unit with the CD TEXT function, the CD TEXT information will appear in the display when you play a CD TEXT disc.

After you select the desired item, the display will automatically change to the Motion Display mode after a few seconds. In the Motion Display mode, all the above items are scrolled in the display one by one in order.

Tip

The Motion Display mode can be turned off. (See “Changing the sound and display settings” on page 15).

Erasing the disc memo

- 1 Press **(SOURCE)** repeatedly to select CD.
- 2 Press **(MODE)** repeatedly to select the CD unit.
- 3 Press **(LIST)** for two seconds.
- 4 Press **(DSPL)** for two seconds.
- 5 Rotate the dial to select the name you want to erase.
- 6 Press **(5)** (**ENTER**) for two seconds.
The name is erased.
Repeat steps 5 and 6 if you want to erase other names.
- 7 Press **(LIST)** for two seconds.
The unit returns to normal CD playback mode.

Note

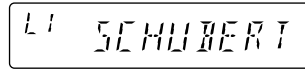
When a personalized label is erased, the original CD TEXT information will appear in the display.

Locating a disc by name

— List-up (For a CD unit with the custom file function or an MD unit)

You can use this function for discs that have been assigned a custom name. For more information on disc names, refer to "Labeling a CD" (page 18).

- 1 Press **(LIST)**.
The name assigned to the current disc appears in the display.



When you assign a disc memo label to a CD TEXT disc, it takes priority over the original CD TEXT information.

- 2 Press **(LIST)** repeatedly until you find the desired disc.
- 3 Press **(5)** (**ENTER**) to play the disc.

Notes

- After a disc name has been displayed for five seconds, the display goes back to normal playback mode. To turn off the display, press **(DSPL)**.
- The track names are not displayed during MD or CD TEXT disc playback.
- If there are no discs in the magazine, "NO DISC" appears in the display.
- If a disc has not been assigned a custom file, "*****" appears in the display.
- If the disc information has not been read by the unit, "NOT READ" appears in the display. To load a disc, first press the number button, then choose the disc that has not been loaded.
- There are also some letters which cannot be displayed (during MD or CD TEXT disc playback).

Selecting specific tracks for playback

— Bank

(For a CD unit with the custom file function)

If you label the disc, you can set the unit to skip or play the tracks of your choice.

- 1 Start playing the disc and press **(SHIFT)**, then press **(3)** (PLAY MODE) for two seconds.

Bank edit mode.



Note

If you have not labeled the disc, the bank edit mode does not appear and the program edit mode appears. To go back to normal playback mode, press **(3)** (PLAY MODE) for two seconds.

- 2 Push the SEEK/AMS control up or down to select the track number you want to skip and press **(5)** (ENTER).



The indication changes from "PLAY" to "SKIP." To return the indication to "PLAY," press **(5)** (ENTER) again.

- 3 Repeat step 2 to set "PLAY" or "SKIP" for all the tracks.
- 4 Press **(3)** (PLAY MODE) for two seconds. The unit returns to normal CD playback mode.
- 5 Press **(SHIFT)**.

Notes

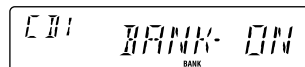
- You can set "PLAY" or "SKIP" for up to 24 tracks.
- You cannot set "SKIP" for all the tracks on a CD.

Playing specific tracks only

You can select:

- BANK-ON – to play the tracks with the "PLAY" setting.
- BANK-INV (Inverse) – to play the tracks with the "SKIP" setting.

- 1 During playback, press **(SHIFT)**, then press **(3)** (PLAY MODE) repeatedly until "BANK" appears.
- 2 Press **(4)** (→) repeatedly until the desired setting appears.



Playback starts from the track following the current one.

- 3 Press **(SHIFT)**.

To return to normal play mode, select "BANK-OFF" in step 2 above.

TV/Video

You can connect an optional TV tuner and TV monitor to this unit.

Watching the TV

- 1 Press **(SOURCE)** repeatedly until "TV" appears.
- 2 Push the SEEK/AMS control up or down to select the desired TV band.

Watching a video

- 1 Press **(SOURCE)** repeatedly until "TV" appears.
- 2 Press **(MODE)** repeatedly to select "VIDEO-1."
Playback the video.

Note

"VIDEO-2" appears if the VIDEO 2 terminal of the TV monitor is selected.

Memorizing TV channels automatically

The unit selects the TV channels with the strongest signals and memorizes them in the order of their frequency.

Caution

When tuning in a station while driving, use Best Tuning Memory to prevent accidents.

- 1 Press **(SOURCE)** repeatedly until "TV" appears.
- 2 Press **(SHIFT)**, then press **(3) (PLAY MODE)** repeatedly until "AUTO MEM" appears.

- 3 Press **(4) (→)**.
The unit stores TV channels in the order of their frequencies on the number buttons. A beep sounds when the setting is stored.

- 4 Press **(SHIFT)**.

Notes

- The unit does not store TV channels with weak signals. If only a few TV channels can be received, some number buttons will remain empty.
- When a preset number is indicated in the display, the unit starts storing TV channels from the one currently displayed.

Memorizing only the desired TV channels

You can store up to 6 channels on the number buttons in the order of your choice.

- 1 Press **(SOURCE)** repeatedly until "TV" appears.
- 2 Push the SEEK/AMS control up or down to tune in the TV channel you want to store on each number button.
- 3 Keep the desired number button (**(1)** to **(6)**) pressed until you hear a beep sound.
The number button indication appears in the display.

Note

If you try to store another channel on the same number button, the previously stored channel will be erased.

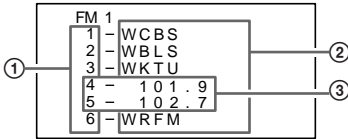
Storing the TV channel names

Follow the steps in "Storing the station names"(page 1).

Displaying the TV or radio station names

Press **(LIST)** during TV or radio reception.

Example: When receiving the FM1 band



- ① Preset number
- ② Stored station names
- ③ Frequencies*

* If the name of a station is not stored, the frequency of that station will be displayed instead.

Notes

- It may take some time before all indications appear in the display.
- The TV channel does not appear during list display.
- The contents of the preset memory cannot be listed when the unit is in simultaneous play mode.

Turning off the display

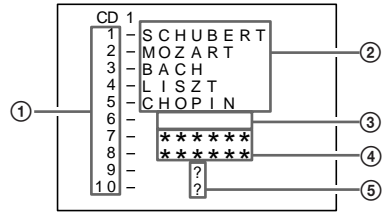
During radio reception, press **(LIST)** again.

During TV reception, the list display on the TV monitor will automatically turn off after a few seconds.

Displaying the information stored on discs

Press **(LIST)** during CD/MD playback.

Example: When CD unit 1 is selected.



- ① Disc numbers
- ② Titles stored as custom files
- ③ No disc loaded *1
- ④ No stored titles *2
- ⑤ TOC information has not been identified yet*3

*1 A blank space displayed next to a disc number represents empty slots in the disc magazine.

*2 If a title is not registered in the custom file, "*****" is displayed.

*3 If the disc information has not been read yet, "?" is displayed.

Notes

- It may take some time until all indications appear in the display.
- The TV channel does not appear during list display.
- The contents of the preset memory cannot be listed when the unit is in simultaneous play mode.

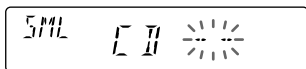
Turning off the display

Press **(LIST)** again.

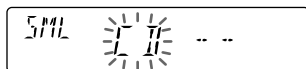
Watching the TV or video while listening to a tape, CD, or MD — Simultaneous Play

The simultaneous play function does not work while you are listening to the radio.

- 1 Press **(SOURCE)** for two seconds.



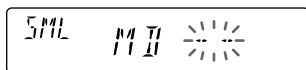
- 2 Press **(1)** (←).



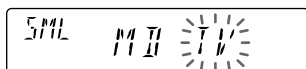
- 3 Press **(SOURCE)** repeatedly to select a tape, CD, or MD.



- 4 Press **(4)** (→).



- 5 Press **(SOURCE)** repeatedly to select a TV or video.



- 6 Press **(SOURCE)** for two seconds. Simultaneous Play starts.

If you are already watching the TV or video and want to begin listening to a tape, CD, or MD as well, follow the same above steps except press **(4)** (→) in step 2 and press **(1)** (←) in step 4.

Returning to normal mode

To cancel the CD or MD, follow the steps above and select "1" in step 3.

To cancel the TV or video, follow the steps above and select "1" in step 5.

Note

If you press the EJECT button on a CD/MD unit while the unit is in simultaneous play mode, Simultaneous Play is canceled.

Additional Information

Precautions

- If your car was parked in direct sunlight resulting in a considerable rise in temperature inside the car, allow the unit to cool off before operating it.
- If no power is being supplied to the unit, check the connections first. If everything is in order, check the fuse.
- If no sound comes from the speakers of a 2-speaker system, set the fader control to the center position.
- When a tape is played back for a long period, the cassette may become warm because of the built-in power amplifier. However, this is not a sign of malfunction.

If you have any questions or problems concerning your unit that are not covered in this manual, please consult your nearest Sony dealer.

To maintain high quality sound

If you have drink holders near your audio equipment, be careful not to splash juice or other soft drinks onto the car audio. Sugary residues on this unit or cassette tapes may contaminate the playback heads, reduce the sound quality, or prevent sound reproduction altogether.

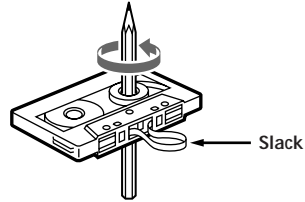
Cassette cleaning kits cannot remove sugar from the tape heads.



Notes on Cassettes

Cassette care

- Do not touch the tape surface of a cassette, as any dirt or dust will contaminate the heads.
- Keep cassettes away from equipment with built-in magnets such as speakers and amplifiers, as erasure or distortion on the recorded tape could occur.
- Do not expose cassettes to direct sunlight, extremely cold temperatures or moisture.
- Slack in the tape may cause the tape to be caught in the machine. Before you insert the tape, use a pencil or a similar object to turn the reel and take up any slack.



- Distorted cassettes and loose labels can cause problems when inserting or ejecting tapes. Remove or replace loose labels.



- The sound may become distorted while playing the cassette. The cassette player head should be cleaned after each 50 hours of use.

Cassettes longer than 90 minutes

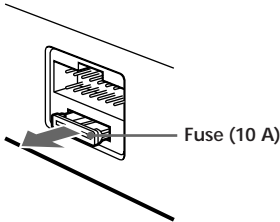
The use of cassettes longer than 90 minutes is not recommended except for long continuous play. The tape used for these cassettes is very thin and tends to stretch easily. Frequent playing and stopping of these tapes may cause them to be entangled in the cassette deck mechanism.



Maintenance

Fuse Replacement

When replacing the fuse, be sure to use one matching the amperage rating stated on the original fuse. If the fuse blows, check the power connection and replace the fuse. If the fuse blows again after replacement, there may be an internal malfunction. In such a case, consult your nearest Sony dealer.

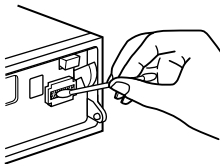


Warning

Never use a fuse with an amperage rating exceeding the one supplied with the unit as this could damage the unit.

Cleaning the Connectors

The unit may not function properly if the connectors between the unit and the front panel are not clean. In order to prevent this, open the front panel by pressing **OPEN**, then detach it and clean the connectors with a cotton swab dipped in alcohol. Do not apply too much force. Otherwise, the connectors may be damaged.



Main unit



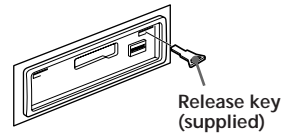
Back of the front panel

Notes

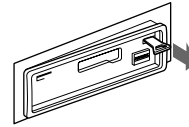
- For safety, turn off the engine before cleaning the connectors and remove the key from the ignition switch.
- Never touch the connectors directly with your fingers or with any metal device.

Dismounting the unit

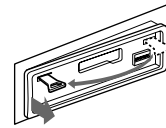
1



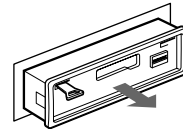
2



3



4



Specifications

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION

17 watts per channel minimum continuous average power into 4 ohms, 4 channels driven from 20 Hz to 20 kHz with no more than 1 % total harmonic distortion.

Other specifications

Cassette player section

Tape track	4-track 2-channel stereo
Wow and flutter	0.08 % (WRMS)
Frequency response	30 – 18,000 Hz
Signal-to-noise ratio	

Cassette type	Dolby B NR	Dolby NR off
TYPE II, IV	67 dB	61 dB
TYPE I	64 dB	58 dB

Tuner section

F M

Tuning range	87.5 – 107.9 MHz
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz
Usable sensitivity	9 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	65 dB (stereo), 68 dB (mono)

Harmonic distortion at 1 kHz
0.7 % (stereo),
0.4 % (mono)

Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz

A M

Tuning range	530 – 1,710 kHz
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz/450 kHz
Sensitivity	30 μ V

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	40 W \times 4 (at 4 ohms)

General

Outputs	Audio outputs (2) Power antenna relay control lead Power amplifier control lead Telephone ATT control lead
Tone controls	Bass \pm 8 dB at 100 Hz Treble \pm 8 dB at 10 kHz
Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 188 \times 58 \times 181 mm (7 ¹ / ₂ \times 2 ³ / ₈ \times 7 ¹ / ₄ in.) (w/h/d)
Mounting dimensions	Approx. 182 \times 53 \times 164 mm (7 ¹ / ₄ \times 2 ¹ / ₈ \times 6 ¹ / ₂ in.) (w/h/d)
Mass	Approx. 1.2 kg (2 lb 10 oz)
Supplied accessories	Parts for installation and connections (1 set) Front panel case (1)
Optional accessories	Rotary commander RM-X4S Wireless remote RM-X47 BUS cable (supplied with an RCA pin cord) RC-61 (1 m), RC-62 (2 m)
Optional equipment	CD changer (10 discs) CDX-828, CDX-727 MD changer (6 discs) MDX-65 Other CD/MD changers with the Sony-BUS system Source selector XA-C30 TV tuner XT-40V, etc

Design and specifications are subject to change without notice.

Troubleshooting guide

The following checklist will help you remedy the problems you may encounter with your unit. Before going through the checklist below, check the connections and operating procedures.

General

Problem	Cause/Solution
No sound.	<ul style="list-style-type: none">• Cancel the ATT function.• Set the fader control to the center position for two-speaker systems.• Rotate the dial clockwise to adjust the volume.
The contents of the memory have been erased.	<ul style="list-style-type: none">• The power cord or battery has been disconnected.• The reset button was pressed. → Store again into the memory.
Indications do not appear in the display.	Remove the front panel and clean the connectors. See "Cleaning the connectors" (page 25) for details.

Tape playback

Problem	Cause/Solution
The sound is distorted.	The tape head is contaminated. → Clean the head with a commercially available dry-type cleaning cassette.
The AMS does not operate correctly.	<ul style="list-style-type: none">• There is noise in the space between tracks.• The blank space is too short (less than four seconds).• The SEEK/AMS control was pushed up immediately before the following track.• The SEEK/AMS control was pushed down immediately after the track starts.• A long pause, or a passage of low frequencies or very low sound level is treated as a blank space.

Radio reception

Problem	Cause/Solution
Preset tuning is not possible.	<ul style="list-style-type: none">• Memorize the correct frequency.• The broadcast signal is too weak.
Automatic tuning is not possible.	The broadcast signal is too weak. → Use manual tuning.
The "ST" indication flashes.	<ul style="list-style-type: none">• Tune in the frequency accurately.• The broadcast signal is too weak. → Set to MONO mode (page 10).

CD/MD playback

Problem	Cause/Solution
The sound skips.	A dirty or defective disc.
Cannot turn off the "-----" indication.	You cannot label MDs unless you connect a CD unit with the custom file function. → Press (LIST) for two seconds.

Error displays (when an optional CD/MD unit is connected)

The following indications will flash for about five seconds, and an alarm sound will be heard.

Display	Cause	Solution
NO MAG	The disc magazine is not inserted in the CD/MD unit.	Insert the disc magazine in the CD/MD unit.
NO DISC	No disc is inserted in the CD/MD unit.	Insert discs in the CD/MD unit.
NG DISCS	A CD/MD cannot play because of some problem.	Insert another CD/MD.
ERROR *1	A CD is dirty or inserted upside down. *2	Clean or insert the CD correctly.
	An MD does not play because of some problem. *2	Insert another MD.
BLANK *1	No tracks have been recorded on an MD. *2	Play an MD with tracks recorded on it.
RESET	The CD/MD unit cannot be operated because of some problem.	Press the reset button of the unit.
NO READY	The lid of the MD unit is open or MDs are not inserted properly.	Close the lid or insert the MDs properly.
HI TEMP	The ambient temperature is more than 50 °C (122 °F).	Wait until the temperature goes down below 50 °C (122 °F).

*1 When an error occurs during playback of a CD or MD, the disc number of the CD or MD does not appear in the display.

*2 The disc number of the disc causing the error appears in the display.

If the above-mentioned solutions do not help improve the situation, consult your nearest Sony dealer.

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